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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/575,078

01/19/2007

Gerhard Schwenk

SCHW3003/JEK

8640

23364 7590 12/03/2008

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625 SLATERS LANE

FOURTH FLOOR

ALEXANDRIA, VA 22314-1176

EXAMINER

LEWIS, JUSTIN V

ART UNIT

PAPER NUMBER

3725

MAIL DATE

DELIVERY MODE

12/03/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/575,078	Applicant(s) SCHWENK ET AL.	
	Examiner JUSTIN V. LEWIS	Art Unit 3725	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 13 August 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-32 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-32 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 07 April 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. Applicant's amendment, received on 13 August 2008 is acknowledged.

Amended claims 10-11, 14-15, 17, 20, 22-23 and 25-28 have been entered.

Accordingly, claims 1-32 are currently pending.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

4. Claims 1, 4-11, 13, 16-19 and 30-31 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 6,506,476 to Kaule et. al. ("Kaule") in view of U.S. Patent No. 4,455,039 to Weitzen et. al. ("Weitzen").

Regarding claim 1, Kaule discloses a value document, comprising a value document substrate (label 2) and a first feature substance (luminescent substance 6) for

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checking the value document, wherein the first feature substance forms an independent coding (note that presence of the luminescent substance indicates authenticity) and is applied to the value document substrate or incorporated into the volume of the substrate (see fig. 3), but fails to disclose a second feature substance.

Weitzen teaches the concept of providing a value document with a second feature substance (coating in the form of bands 3, 4 and 5) for checking the value document, wherein the second feature substance forms an independent coding (see col. 1, lines 37-38) and is applied to the document substrate (see col. 1, lines 31-35).

It would have been obvious to a person of ordinary skill in the art at the time of the invention to place the Weitzen coating upon the Kaule value document as desired, in order to render the document more difficult to counterfeit, as explicitly taught by Weitzen (see col. 1, lines 31-33).

Regarding claim 4, Kaule in view of Weitzen discloses the value document according to claim 1, wherein at least one of the feature substances is formed by at least one of a luminescent substance and a mixture of luminescent substances (see Kaule abstract).

Regarding claim 5, Kaule in view of Weitzen discloses the value document according to claim 1, wherein at least one of the feature substances is formed on the basis of a host lattice doped with rare earth elements (see Kaule col. 1, lines 5-8).

Regarding claim 6, Kaule in view of Weitzen discloses the value document according to claim 1, wherein at least one coding extends over a predominant part of a surface of the value document (see Kaule col. 3, lines 30-34).

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Regarding claim 7, Kaule in view of Weitzen discloses the value document according to claim 1, wherein at least one coding is a bar code (see Weitzen col. 1, lines 37-38).

Regarding claim 8, Kaule in view of Weitzen discloses the value document according to claim 1, wherein at least one coding lies in the material properties of at least one of the first and second feature substances (note that that the coding of the Kaule feature substance lies in its luminescence).

Regarding claim 9, Kaule in view of Weitzen discloses the value document according to claim 1, wherein at least one coding represents information about the value document, the information being present in at least one of encrypted and unencrypted form (note that the Weitzen bar code will represent information about the document when applied).

Regarding claim 10, Kaule in view of Weitzen discloses the value document according to claim 1, wherein the codings formed by the first and second feature substances are either or both applied at different places of the value document and applied with different shapes on the value document (note that the Kaule feature substance is incorporated throughout the value document, whereas the Weitzen feature substance coating is placed at specific locations in order to form bar codes).

Regarding claim 11, Kaule in view of Weitzen discloses the value document according to claim 1, wherein the codings formed by the first and second feature substances represent different information contents (note that the Kaule feature

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substance merely confirms authenticity whereas the Weitzen bar code relays information about the value document).

Regarding claim 13, Kaule in view of Weitzen discloses the value document according to claim 1, wherein the value document comprises a printed or unprinted plastic film (see Kaule col. 3, lines 19-22).

Regarding claim 16, Kaule in view of Weitzen discloses the value document according to claim 1, wherein the first feature substance is present within the volume of the value document substrate or near the surface in the substrate (see Kaule fig. 3).

Regarding claim 17, Kaule in view of Weitzen discloses the value document according to claim 1, wherein at least one of the first and second feature substances is colorless or has only little inherent color in the visible spectral range (see Weitzen abstract, providing that the coding is transparent).

Regarding claim 18, Kaule in view of Weitzen discloses a method for producing a value document according to claim 1, comprising the step of providing first and second feature substances forming mutually independent codings (see the combination set forth in the rejection of claim 1, above), the second feature substance being applied to the value document substrate (see Weitzen col. 1, lines 31-35), and the first feature substance either or both being applied to the value document substrate and incorporated into the volume of the substrate (see Kaule fig. 3).

Regarding claim 19, Kaule in view of Weitzen discloses the production method according to claim 18, wherein the first and/or second feature substance is printed on the value document substrate (see Weitzen col. 1, lines 31-35).

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Regarding claim 30, Kaule in view of Weitzen discloses the value document according to claim 6, wherein the coding extends over substantially the total surface of the value document (see Kaule col. 3, lines 30-34).

Regarding claim 31, Kaule in view of Weitzen discloses the value document according to claim 8, wherein the material properties are in the form of at least one of emission and excitation spectra (see col. 1, lines 19-23).

5. Claims 2-3 and 21-29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kaule in view of Weitzen and further in view of U.S. Patent No. 6,491,324 to Schmitz et. al. ("Schmitz").

Regarding claim 2, Kaule in view of Weitzen discloses the value document according to claim 1, but fails to disclose a third feature substance.

Schmitz teaches the concept of providing a third feature substance (magnetic layer 5) incorporated into the volume of the substrate of a value document (see fig. 2).

It would have been obvious to a person of ordinary skill in the art at the time of the invention to include the Schmitz magnetic layer within the value document of Kaule in view of Weitzen in order to provide security threads for the document, as explicitly taught by Schmitz (see col. 2, lines 16-17).

Regarding claim 3, Kaule in view of Weitzen and further in view of Schmitz discloses the value document according to claim 2, wherein the third feature substance is distributed substantially uniformly within the volume of the value document substance (see Schmitz fig. 2).

Regarding claim 21, Kaule in view of Weitzen and modified by Schmitz (in the manner set forth in the rejection of claim 2, above), discloses the production method according to claim 18, wherein a third feature substance is incorporated into the value document substrate (see Schmitz fig. 2).

Regarding claim 22, Kaule in view of Weitzen and modified by Schmitz (in the manner set forth in the rejection of claim 2, above), discloses a method for checking or processing a value document according to claim 2, comprising the step of checking the authenticity of the value document (verifying that the Kaule luminescent substance is present) and carrying out a value recognition of the document (reading the value bar code present per Weitzen col. 11, lines 2-5) by using at least one characteristic property of at least one of the first and second feature substances for checking the authenticity of the value document, and the coding formed by at least one of the first and second feature substances for the value recognition of the value document.

Regarding claim 23, Kaule in view of Weitzen and modified by Schmitz (in the manner set forth in the rejection of claim 2, above), discloses the method according to claim 22, wherein at least one characteristic property of the first feature substance is used for checking the authenticity of the value document (luminescence of the embedded particles), and the coding formed by the first feature substance for the value recognition of the value document (note that the absence of luminescence indicates that the document has no value at all), by a user of the first user group.

Regarding claim 24, Kaule in view of Weitzen and modified by Schmitz (in the manner set forth in the rejection of claim 2, above), discloses the method according to

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claim 22, wherein at least one characteristic property of the second feature substance is used for checking the authenticity of the value document (note that the presence of the Weitzen bar code indicates authenticity), and the coding formed by the second feature substance for the value recognition of the value document (note that the Weitzen bar code may indicate a specific value of the document, per col. 11, lines 2-5), by a user of a second user group.

Regarding claim 25, Kaule in view of Weitzen and modified by Schmitz (in the manner set forth in the rejection of claim 2, above), discloses the method according to claim 22, wherein at least one characteristic property of at least one of the first and third feature substances is used for checking the authenticity of the value document (note that the presence of the Kaule luminescent particles confirms authenticity), and the coding formed by the first feature substance is used for the value recognition of the value document (note that the absence of the Kaule luminescent particles indicates worthlessness), if the user belongs to a first user group, and at least one characteristic property of the second feature substance is used for checking the authenticity of the value document (note that presence of the Weitzen bar codes confirms authenticity), and the coding formed by the second feature substance is used for the value recognition of the value document (note that the Weitzen bar code may indicate a specific value of the document, per col. 11, lines 2-5), if the user belongs to a second user group.

Regarding claim 26, Kaule in view of Weitzen and modified by Schmitz (in the manner set forth in the rejection of claim 2, above), discloses the method according to

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claim 22, wherein the first feature substance is a luminescent substance (see Kaule abstract), and for the authenticity check or value recognition by a user of a first user group, the first feature substance is irradiated with radiation from its excitation range (see Kaule col. 5, lines 35-39), the emission is determined at least one wavelength from the emission range of the first feature substance (note that in Kaule fig. 1, the wavelengths of a variety of luminescent materials are provided, each wavelength being far less than 10 micrometers; note further that in order to properly inspect the value document, a user will naturally hold the document at a distance of greater than 10 micrometers away from his/her eyes), and at least one of the check of authenticity and the value recognition is carried out on the basis of the determined emission (note that the presence of luminescent particles confirms authenticity).

Regarding claim 27, Kaule in view of Weitzen and modified by Schmitz (in the manner set forth in the rejection of claim 2, above), discloses the method according to claim 22, wherein the second feature substance is a luminescent substance (see Weitzen abstract, providing that the physical characteristic of electroluminescence is present), for the authenticity check or value recognition by a user of a second user group the second feature substance is irradiated with radiation from its excitation range, the emission is determined at at least one wavelength from the emission range of the second feature substance, and either or both the check of authenticity and the value recognition is carried out on the basis of the determined emission (see the rejection of claim 26, above; note that a similar check for electroluminescence will similarly require holding the reader at a distance of greater than 10 micrometers from the substrate).

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Regarding claim 28, Kaule in view of Weitzen and modified by Schmitz (in the manner set forth in the rejection of claim 2, above), discloses the method according to claim 26, wherein at least one of the first and second feature substances is irradiated with at least one of visible and infrared radiation, and the emission of the irradiated feature substance is determined in the infrared spectral range (see col. 1, lines 15-18).

Regarding claim 29, Kaule in view of Weitzen and modified by Schmitz (in the manner set forth in the rejection of claim 2, above), discloses the method according to claim 26, wherein the irradiation is performed with at least one of a light-emitting diode and a laser diode (see Kaule col. 5, lines 35-39, specifying that various light sources such as halogen lamps may be used; note that per the Meriam-Webster dictionary, a "diode" is "an electronic device that has two terminals"; note further that a halogen lamp is an electronic device that has two terminals; note further that halogen lamps emit light; accordingly, the halogen lamps taught by Kaule are "light-emitting diodes").

6. Claims 12, 14-15, 20, and 32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kaule in view of Weitzen and further in view of U.S. Patent Application Publication No. 2004/00824277 to Blair ("Blair").

Regarding claim 12, Kaule in view of Weitzen discloses the value document according to claim 1, but fails to disclose the use of cotton fiber paper.

Blair teaches the concept of providing a substrate comprising printed or unprinted cotton fiber paper (see paragraph 6, lines 6-7).

It would have been obvious to a person of ordinary skill in the art at the time of the invention to use the Blair cotton pulp in order to make the document of value of

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Kaule in view of Weitzen, in order to give it better durability than commercial papers and a distinctive feel, as explicitly taught by Blair (see paragraph 6, lines 7-9).

Regarding claim 14, Kaule in view of Weitzen and modified by Blair (in the manner set forth in the rejection of claim 12, above), discloses the value document according to claim 1, wherein the substrate is paper having the form of a moist paper web during production (note that the use of the Blair cotton pulp requires that the value document consist of a moist paper web at some point during production), and therein at least one of the first and second feature substances is printed on the value document substrate.

Regarding claim 15, Kaule in view of Weitzen and modified by Blair (in the manner set forth in the rejection of claim 12, above), discloses the value document according to claim 1, wherein at least one of the first and second feature substances is applied to the moist paper web (note that the use of the Blair cotton pulp requires that the value document consist of a moist paper web at some point during production) in the form of the coding during papermaking (see Kaule col. 2, lines 37-39).

Regarding claim 20, Kaule in view of Weitzen and modified by Blair (in the manner set forth in the rejection of claim 12, above), discloses the production method according to claim 18, wherein the value document substrate is formed by a printed or unprinted cotton paper (see the combination set forth in the rejection of claim 12, above), and wherein at least one of the first and second feature substances is sprayed onto the moist paper web during papermaking (see Kaule col. 2, lines 37-39).

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Regarding claim 32, Kaule in view of Weitzen and modified by Blair (in the manner set forth in the rejection of claim 12, above) discloses the value document according to claim 15, wherein the second feature substance is sprayed on the moist paper web in the form of the coding (see Kaule col. 2, lines 37-39; note that the mere presence of the luminescent particles indicates authenticity).

Response to Arguments

7. Applicant's arguments with respect to claims 1-32 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JUSTIN V. LEWIS whose telephone number is (571)270-5052. The examiner can normally be reached on M-F 7:30am - 5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dana Ross can be reached on (571) 272-4480. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Dana Ross/

Supervisory Patent Examiner, Art Unit 3725

/JVL/